

# Recovery Plan Action Status

Plan Name: Recovery Plan for Serpentine Soil Species of the San Francisco Bay Area

Plan Status: Final

Plan Date: 30-Sep-98

Lead Agency: USFWS

Lead Office: Sacramento Fish And Wildlife Office

(916)

414-6600 )

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Bay checkerspot butterfly (Euphydryas editha bayensis), Tiburon mariposa lily (Calochortus tiburonensis), Metcalf Canyon jewelflower (Streptanthus albidus ssp. albidus), Pennell's bird's-beak (Cordylanthus tenuis ssp. capillaris), San Mateo woolly sunflower (Eriophyllum latilobum), Coyote ceanothus (Ceanothus ferrisiae), White-rayed pentachaeta (Pentachaeta bellidiflora), Presidio clarkia (Clarkia franciscana), Fountain thistle (Cirsium fontinale var. fontinale), Tiburon paintbrush (Castilleja affinis ssp. neglecta), Marin dwarf-flax (Hesperolinon congestum), Tiburon jewelflower (Streptanthus niger), San Mateo thormint (Acanthomintha obovata ssp. duttonii), Santa Clara Valley dudleya (Dudleya setchellii)	2	1.1	Establish cooperative programs with participants from the public and private sector	Ongoing Not Current	FY 1995 - FY 1999		U.S. Fish and Wildlife Service, California Department of Fish and Game	Other: Information and Education	Internal Technical Assistance	Cooperative program established with Stuart Weiss and San Mateo Parks for reintroduction of Bay Checkerspot into Edgewood Park.

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Bay checkerspot butterfly (Euphydryas editha bayensis), White-rayed pentachaeta (Pentachaeta bellidiflora), Fountain thistle (Cirsium fontinale var. fontinale), San Mateo thormmint (Acanthomintha obovata ssp. duttonii)	1	2.1.13	Secure and protect serpentine habitat in Triangle area (San Mateo County) for multiple species	Not Started			California Department of Transportation, San Francisco Water Department, U.S. Fish and Wildlife Service, California Department of Fish and Game	Acquisition: Easement	Internal Field Assistance	

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White-rayed pentachaeta (Pentachaeta bellidiflora)	3	4.2.12	Conduct surveys in historic and potential habitat in Larkspur (northwest of Tiburon Peninsula) (Marin County) for Pentachaeta bellidiflora	Not Started			U.S. Fish and Wildlife Service, California Department of Fish and Game	Research: Population Surveys	Graduate Student	

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White-rayed pentachaeta (Pentachaeta bellidiflora)	2	4.2.13	Conduct surveys in historic and potential habitat at marin City (on Marin Peninsula west of Tiburon Peninsula) (Marin County) for Pentachaeta bellidiflora	Not Started			U.S. Fish and Wildlife Service, California Department of Fish and Game	Research: Population Surveys	Graduate Student	
White-rayed pentachaeta (Pentachaeta bellidiflora)	3	4.2.16	Conduct surveys in historic and potential habitat in Ross Valley area (northwest of Tiburon Peninsula) (Marin County) for Pentachaeta bellidiflora	Not Started			U.S. Fish and Wildlife Service, California Department of Fish and Game	Research: Population Surveys	Graduate Student	
White-rayed pentachaeta (Pentachaeta bellidiflora)	1	4.2.22	Survey historic and potential habitat at Crystal Springs Reservoir area (San Mateo County) for multiple species	Partially Complete	Prior to FY 1995	Prior to FY 1995	California Department of Transportation, San Francisco Water Department, U.S. Fish and Wildlife Service, California Department of Fish and Game	Research: Population Surveys	Species Expert	Several populations of Hesperolinon congestum were found in May 2009. Numbers of plants totalled about 10,000. This was historic San Mateo thornmint habitat -- this species was not found.  Small population of white-rayed pentachaeta may have been found SW of Crystal Springs Res. prior to 1997 by Mike Vasey. Needs further surveys.
White-rayed pentachaeta (Pentachaeta bellidiflora)	2	4.2.23	Conduct surveys in historic and potential habitat in Edgewood Natural Preserve (San Mateo County) for multiple species	Ongoing Current	FY 1995 - FY 1999		San Mateo County, California, U.S. Fish and Wildlife Service, California Department of Fish and Game	Research: Population Surveys	Graduate Student	None of these specific tasks started but other activities at Edgewood are 2001-2006 assessment of grass invasions, BCB population extinction, BCB habitat restoration techniques, planned reintro of BCB in 2007.



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White-rayed pentachaeta (Pentachaeta bellidiflora)	3	4.2.27	Conduct surveys in historic and potential habitat at San Andreas Lake (north of Crystal Springs Reservoir) (San Mateo County) for multiple species	Not Started			U.S. Fish and Wildlife Service, California Department of Fish and Game	Research: Population Surveys	Graduate Student	
Bay checkerspot butterfly (Euphydryas editha bayensis), White-rayed pentachaeta (Pentachaeta bellidiflora)	3	4.2.28	Conduct surveys in historic and potential habitat at San Bruno Mountain (San Mateo County) for multiple species	Not Started			U.S. Fish and Wildlife Service, California Department of Fish and Game	Research: Population Surveys	Graduate Student	
White-rayed pentachaeta (Pentachaeta bellidiflora)	2	4.2.45	Conduct surveys in historic and potential habitat for Ben Lomond Mtn. (Santa Cruz County) for Pentachaeta bellidiflora	Not Started			Santa Cruz County, California, U.S. Fish and Wildlife Service, California Department of Fish and Game	Research: Population Surveys	Graduate Student	
White-rayed pentachaeta (Pentachaeta bellidiflora)	2	4.2.46	Conduct surveys in historic and potential habitat for the Lorenzo Creek area (Santa Cruz County) for Pentachaeta bellidiflora	Not Started			Santa Cruz County, California, U.S. Fish and Wildlife Service, California Department of Fish and Game	Research: Population Surveys	Graduate Student	
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Bay checkerspot butterfly ( <i>Euphydryas editha bayensis</i> ), San Mateo woolly sunflower ( <i>Eriophyllum latilobum</i> ), White-rayed pentachaeta ( <i>Pentachaeta bellidiflora</i> ), Fountain thistle ( <i>Cirsium fontinale</i> var. <i>fontinale</i> ), Marin dwarf-flax ( <i>Hesperolinon congestum</i> ), San Mateo thornmint ( <i>Acanthomintha obovata</i> ssp. <i>duttonii</i> )	2	5.18	Conduct necessary research at selected areas county-wide in San Mateo County on restoring native habitats on serpentine and non-serpentine soils (multiple species)	Not Started			San Mateo County, California, U.S. Fish and Wildlife Service, California Department of Fish and Game	Research: Reintroduction	Graduate Student	
White-rayed pentachaeta ( <i>Pentachaeta bellidiflora</i> ), Fountain thistle ( <i>Cirsium fontinale</i> var. <i>fontinale</i> ), San Mateo thornmint ( <i>Acanthomintha obovata</i> ssp. <i>duttonii</i> )	2	5.22	Conduct necessary research at Triangle (San Mateo County) for multiple species	Not Started			California Department of Transportation, San Francisco Water Department, U.S. Fish and Wildlife Service, California Department of Fish and Game	Research: Management Techniques	Graduate Student	

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